

# Information on Rocky Mountain Spotted Fever



## **What is Rocky Mountain spotted fever?**

Rocky Mountain spotted fever (RMSF) is the most severe tick-borne rickettsial illness in the United States. This disease is caused by infection with the bacterial organism *Rickettsia rickettsii*.

## **How do people get Rocky Mountain spotted fever?**

The organism that causes Rocky Mountain spotted fever is transmitted by the bite of an infected tick. The American dog tick and Rocky Mountain wood tick are the primary arthropods (vectors) which transmit Rocky Mountain spotted fever bacteria in the United States.

## **What are the symptoms of Rocky Mountain spotted fever?**

The early symptoms are often nonspecific and may resemble many other infectious and non-infectious diseases. Initial symptoms may include fever, nausea, vomiting, muscle pain, lack of appetite and severe headache. Later signs and symptoms include rash, abdominal pain, joint pain, and diarrhea. Three important components are fever, rash, and a previous tick bite, although one or more of these components may not be present when the patient is first seen for medical care. Rocky Mountain spotted fever can be a severe illness, and the majority of patients are hospitalized.

## **How is Rocky Mountain spotted fever diagnosed?**

A diagnosis of Rocky Mountain spotted fever is based on a combination of clinical signs and symptoms and specialized confirmatory laboratory tests.

## **How is Rocky Mountain spotted fever treated?**

Rocky Mountain spotted fever is usually treated with doxycycline. Patients are treated for at least 3 days after the fever subsides and until there is unequivocal evidence of improved health. Standard duration of treatment is 5 to 10 days. Because laboratory confirmation is generally not available during acute illness, treatment is initiated based on symptoms and exposure history.

## **In the United States, where do most cases of Rocky Mountain spotted fever occur?**

Rocky Mountain spotted fever is a seasonal disease and occurs throughout the United States during the months of April through September. Over half of the cases occur in the south-Atlantic region of the United States. Although this disease was first discovered and recognized in the Rocky Mountain area, relatively few cases are reported from that area today.

## **Can a person get Rocky Mountain spotted fever more than once?**

Infection with *R. rickettsii* is thought to provide long lasting immunity against re-infection. However, other diseases may also be transmitted by ticks.

## **How can Rocky Mountain spotted fever be prevented?**

Limiting exposure to ticks reduces the likelihood of infection with Rocky Mountain spotted fever. In persons exposed to tick-infested habitats, prompt careful inspection and removal of crawling or attached ticks is an important method of preventing disease. It may take extended attachment time before organisms are transmitted from the tick to the host.

### **How can Rocky Mountain spotted fever be prevented? (cont.)**

Prevention measures should emphasize personal protection when exposed to natural areas where ticks are present:

- Wear light-colored clothing - so you to see ticks that are crawling on you
- Tuck your pants legs into your socks so that ticks cannot crawl up the inside of your pants legs.
- Apply repellents. Repellents containing permethrin can be sprayed on boots and clothing, and will last for several days. Repellents containing DEET can be applied to the skin, but will last only a few hours before reapplication is necessary. Use DEET with caution on children.
- Conduct a body check upon return from potentially tick-infested areas. Remove any tick you find on your body.
- Parents should check their children for ticks, especially in the hair, when returning from potentially tick-infested areas. Ticks may also be carried into the household on clothing and pets and attach later, so both should be examined carefully to exclude ticks.

### **What is the best way to remove a tick?**

1. Use fine-tipped tweezers or notched tick extractor, and protect your fingers with a tissue, paper towel, or latex gloves.
2. Grasp the tick as close to the skin surface as possible and pull upward with steady, even pressure. Do not twist or jerk the tick; this may cause the mouthparts to break off and remain in the skin. *(If this happens, remove mouthparts with tweezers. Consult your health care provider if illness occurs.)*
3. After removing the tick, thoroughly disinfect the bite site and wash your hands with soap and water.
4. Do not squeeze, crush, or puncture the body of the tick because its fluids may contain infectious organisms. Skin accidentally exposed to tick fluids can be disinfected with iodine scrub, rubbing alcohol, or water containing detergents.
5. Save the tick for identification in case you become ill. This may help your doctor to make an accurate diagnosis. Place the tick in a sealable plastic bag and put it in your freezer. Write the date of the bite on a piece of paper with a pencil and place it in the bag.

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*If you have additional questions, please call your doctor or local health department.*

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